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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,031	11/17/2003	LeNoir E. Zaiser	2173.1004-003	2790
59242 7590 02/17/2009 R.D. JOHNSON & ASSOCIATES, P.C. 20 PICKERING STREET P.O. BOX 920353 NEEDHAM, MA 02492				
EXAMINER				
DIXON, ANNETTE FREDRICKA				
ART UNIT		PAPER NUMBER		
3771				
MAIL DATE		DELIVERY MODE		
02/17/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/715,031

**Applicant(s)**

E. ZAISER ET AL.

**Examiner**

Annette F. Dixon

**Art Unit**

3771

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-8 and 10-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8 and 10-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is in response to the amendment filed on February 20, 2008. Examiner acknowledges claims 1, 3-8, 10-60 are pending in this application, with claims 1, 3, 4, 7, 8, 10, 11, 20, 27, 28, 32, 33, and 35 having been currently amended, claims 36-60 having been newly added, and claims 2 and 9 having been cancelled.

#### ***Allowable Subject Matter***

2. The indicated allowability of claims 2-4, 7, 9-11, and 14-35 is withdrawn in view of the reference(s) to Davidson et al. (5,785,050). Rejections based on the reference(s) follow.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-8, 10-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson (5,785,050) and Chu (5,860,447).

As to Claims 1, 31, and 49 Davidson discloses a gas flow device comprising: an outer body (the portion of the device receiving threaded region 12), of a first material having an inner cavity (the space between the threaded region 12 and the orifice 11)

formed therein, the inner cavity bound by an inner wall of the outer body, the inner wall having an orifice (11) extending through the outer body; an inner element (20) within the inner cavity, the inner element being of a material different from the first material and having an external wall with a coupling feature (threads 21 and 22), the coupling feature aligned with the orifice (11); and gas fitting (65) extending through the orifice (11) and engaged with the inner element (20) via the coupling feature (threads, Figure 1).

Regarding the differing material limitations, it should be noted from Figure 1 of Davidson that the coupled elements have different shade patterns. Intrinsically, these different shade patterns give way for the materials to have been constructed from differing materials in order to form the gas flow unit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the two coupled elements from different materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Further, with respect to Applicant's use of the phrase "being of a material different from the first material", it is noted that this recitation within the claims is directed to a process. Since the claim is an apparatus/product claim, patentable weight is only given to the end product. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is in the same as or obvious from a product of the prior art, the claim is

unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

However, should Applicant respectfully disagree, Examiner provides prior art Chu for a teaching of selecting differing materials for portions of the gas regulators. Specifically, Chu teaches material choice in pressure regulators is based upon the ability of the material to withstand the pressures and friction experienced by the pressure regulator, wherein material choices may include aluminum, steel, brass, bronze, or strong plastic (Column 4, Lines 38-40 and 64-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Davidson to include the selected materials as taught by Chu for their ability to withstand changes in pressure and friction.

As to Claims 3, 4, 10, 11, 19, 22, 23, 27, 28, 34, 42, and 47, the system of Davidson as modified by Chu teaches a gas flow device having an outer body made of aluminum and an inner body made of brass. Specifically, Chu teaches the outer body can be made of any material including aluminum provided that the material is strong enough to withstand internal pressures. (Column 4, Lines 38-40). Further, Chu teaches the inner body can be made of any material including brass provided the material is strong enough to withstand the frictional forces. (Column 4, Lines 64-67).

As to Claims 5, 12, 20, 24, 29, 35, 48, 50, 56, and 57 Davidson discloses the use of threads (21 and 22) as coupling features.

As to Claims 6, 13, 25, 30, and 36, Davidson discloses the use of a shuttle (40) to reduce the pressure within the inner element (Figures 1-3) and a flow meter assembly (60).

As to Claims 7, 14, 15, 21, 26, 38, and 44, the system of Davidson as modified by Chu utilizes the same material composition as recited in instant claims; thus, the integrity and effects of the materials with respect to the ignition points are comparable. With respect to claims 15, 21 as previously addressed the material composition of the instant invention and the prior art are the same; thus the ignition points between the recited materials are comparable. Regarding the additional elements of the claims, please see the rejection of claim 1. With respect to claims 26, 38, 44 as previously addressed the material composition of the instant invention and the prior art are the same; thus the ignition points between the recited materials are comparable. Regarding the additional elements of the claims, please see the rejection of claim 8.

As to Claims 8 and 55, Davidson discloses a gas flow device comprising: an outer body (the portion of the device receiving threaded region 12), of a first material having an inner cavity (the space between the threaded region 12 and the orifice 11) formed therein, the inner cavity bound by an inner wall of the outer body, the inner wall having an orifice (11) extending through the outer body; an inner element (20) within the inner cavity, the inner element being of a material different from the first material and having an external wall with a coupling feature (threads 21 and 22), the coupling feature aligned with the orifice (11); and gas fitting (65) extending through the orifice (11) and engaged with the inner element (20) via the coupling feature (threads, Figure 1).

Regarding the differing material limitations, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the two coupled elements from different materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

However, should Applicant respectfully disagree, Examiner provides prior art Chu for a teaching of selecting differing materials for portions of the gas regulators. Specifically, Chu teaches material choice in pressure regulators is based upon the ability of the material to withstand the pressures and friction experienced by the pressure regulator, wherein material choices may include aluminum, steel, brass, bronze, or strong plastic (Column 4, Lines 38-40 and 64-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Davidson to include the selected materials as taught by Chu for their ability to withstand changes in pressure and friction.

As to Claims 16, 39, 54, and 60, Davidson discloses a hose connector fitting (29).

As to Claims 17, 32, 40, and 45, Davidson discloses a pressure gauge (15).

As to Claims 18, 33, 41, and 46, Davidson discloses a check valve (30).

As to Claim 51, Davidson discloses the flow meter (60) is mated with a threaded connection (Figure 1).

As to Claims 52, 53, 58, and 59, Davidson discloses a yoke having a T-handle associated with the outer body (the portion of the device receiving threaded region 12).

***Response to Arguments***

5. Applicant's arguments, filed February 20, 2008 with respect to the rejection(s) of claim(s) 1, 6, 8, and 13 under 35 U.S.C. §102(b) based on Atkins (5,655,524), claims 1, 5, and 6 under 35 U.S.C. §102(b) based on Collado (5,996,625), claim 8 and 13 under 35 U.S.C. §103(a) based on Atkins (5,655,524), and claim 8, 12, and 13 under 35 U.S.C. §102(b) based on Collado (5,996,625) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Davidson (5,785,050) and Chu (5,860,447)

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette F. Dixon whose telephone number is (571) 272-3392. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Annette F Dixon  
Examiner  
Art Unit 3771

/Annette F Dixon/  
Examiner, Art Unit 3771

/Justine R Yu/  
Supervisory Patent Examiner, Art Unit 3771